THE RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT STANDARDS APPLICATION AND NURSES' COMMITMENT: THE CASE OF KING HUSSEIN CANCER CENTER

by

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This Thesis Was Submitted In Partial Fulfillment Of The Requirements For The Master Degree in Public Administration

Faculty of Graduate Studies

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الجامعة الأردنيــة
كلية الدراسات العليا

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نموذج رقم (١٨)
اقرار والتزام بقوانين الجامعة الأردنية وأنظمتها وتعليماتها لطلبة الماجستير

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اعلن بأنني قد التزمت بقوانين الجامعة الأردنية وأنظمتها وتعليماتها وقراراتها السارية المفعول المتعلقة باعداد رسائل الماجستير والدكتوراة عندما قمت شخصيا" باعداد رسالتي / اطروحتي بعنوان: ....

The Relationship Between Total Quality Management Standards Application and Nurses' Commitment: The Case of King Hussein Cancer Center.

وذلك بما ينسجم مع الأمانة العلمية المتعارف عليها في كتابة الرسائل والأطاريح العلمية. كما أنني أعلن بأن رسالتي /اطروحتي هذه غير منقولة أو مستلة من رسائل أو أطاريح أو كتب أو أبحاث أو أي منشورات علمية تم نشرها أو تخزينها في أي وسيلة اعلامية، وتأسيسا" على ما تقدم فانني أتحمل المسؤولية بأنواعها كافة فيما لو تبين غير ذلك بما فيه حق مجلس العمداء في الجامعة الأردنية بالغاء قرار منحي الدرجة العلمية التي حصلت عليها وسحب شهادة التخرج مني بعد صدورها دون أن يكون لي أي حق في التظلم أو الاعتراض أو الطعن بأي صورة كانت في القرار الصادر عن مجلس العمداء بهذا الصدد.

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COMMITTEE DECISION

This Thesis (The Relationship Between Total Quality Management Standards Application and Nurses' Commitment : The case of King Hussein Cancer Center) was Successfully Defended and Approved on 21 December 2011.

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DEDICATION

To my mother's memory, my father who always believed in me and in my abilities and always stand beside me with their love, support and understanding. I thank them for their love and support which has been the source of my inspiration.

To my brothers and sisters for their support .

To my husband and daughter for the love, support and understanding . I thank them all from my heart .

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LIST OF ABBREVIATIONS

TQM	Total Quality Management
JCI	Joint Commission International
KHCC	King Hussein Cancer Center
HRM	Human Resource Management

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THE RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT STANDARDS APPLICATION AND NURSES' COMMITMENT: THE CASE OF KING HUSSIEN CANCER CENTER

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ABSTRACT

The aim of this study is testing the relationship between Total Quality Management (TQM) standards application as included in Joint Commission International Accreditation (JCIA) program (provision of care , medication management , infection prevention and control, human resource management) and nurses' commitment in King Hussein Cancer Center (KHCC).To achieve the objectives of this study and to answer its questions , the researcher developed a questionnaire which was distributed to a sample of (191) of nurses ,and (147) questionnaires were returned constituting (77%) of the total distributed . The appropriate statistical methods (SPSS)

were used for analysis of the data and testing hypotheses of the study . Results of the study are the following :

1. There is significant relationship between application of TQM (JCIA program) and nurses' commitment in KHCC, and mostly affected by human resource management practices .
2. Compensation plan not communicated to all nurses in KHCC.
3. There is limited nurse's commitment in KHCC (the mean value was 3.54).
4. There are no significant differences between TQM standards application and nurses' commitment in KHCC due to socio – demographic variables

Based on the results of this study, the following recommendations are presented:

(1) Encourage all nurses to apply the standards of the JC IA Program in all areas in KHCC.

(2) Include the standards in training programs, and appraisal of nurses in KHCC.

(3) Pay attention to customer's attitude toward nurses' commitment in KHCC.

(4) Utilize human resource strategies of hiring and retaining experienced, committed nurses.

CHAPTER 1

Introduction

1.1 Background

As the context of health care is changing due to the technological advances, nurses and other health care professionals need to respond in a knowledgeable and a practical way . Such response needs to use a powerful system such as applying Total Quality Management (TQM) standards in hospitals .

Total Quality Management (TQM) is a process by which entities review the quality of all factors involved in production . This approach places an emphasis on competences : such as knowledge, skills, experience, and qualifications , and personnel integrity, confidence, organizational culture, and motivation . (Johnson and Closkey,1992).

The “TQM standards” is a descriptive statement of desired quality, by which to evaluate nursing care. It is considered to be a guideline to safe care and an aid to professional performance. (Karen and Corrigan,1995).

Joint Commission International (JCI) is a program of TQM in hospitals, which is clearly an organizational accreditation approach to evaluate all the «systems» of health care organization . The JCI model evaluates the ability of an organization to assess , and monitor its professional staff through internal mechanisms .(Donahue and Van Ostenberg ,2000).

Employee commitment is an important organizational issue. Committed employees give a big contribution to achieve organizations’ success because they perform and behave in achieving organizations' goals. Furthermore, workers who are committed to their organization

are happy to be members of it, believe in and feel good about the organization and what it stands for, and intend to do what is good for the organization (George and Jones, 1996).

1.2 Problem Statement

The problem statement of this study can be summarized by the following :

what is the relationship between Total Quality Management standards application and nurses' commitment in KHCC ?

This question consist of the following sub questions :

1. To what extent are the standards of Total Quality Management (TQM) implemented in King Hussein Cancer Center (KHCC)?
2. What is the extent of nurses' commitment in KHCC?
3. What is the effect of TQM standards application on nurses' commitment in KHCC?
4. Is the relationship between TQM standards application and nurses' commitment in KHCC moderated by the socio- demographic variables (age, level of education, gender, marital status, experience, and job status)?
5. What is the most important TQM standard affecting nurses' commitment in KHCC?

1.3 Importance of the study

The research will be , to the researcher best knowledge , the first attempt to study the relationship between Total Quality Management (TQM) standards as in Joint Commission International Accreditation (JCIA) program and nurses' commitment in King Hussein Cancer Center (KHCC) . Research importance arises from the importance of the subject itself . Conducting this research may help in the following : building body of nursing

knowledge about commitment , improve nursing practice and then strengthen community confidence in the quality and safety of care , making healthcare efficient and cost effective, enhancing staff awareness(Bard,2002) .

1.4 Objectives of the study

The general purpose of the study is to identify the relationship between Total Quality Management (TQM) standards as in Joint Commission International Accreditation (JCIA) program and nurses' commitment in KHCC.The specific objectives of the study are to :

1. Identify nurses' commitment in KHCC.
2. Investigate the relationship between TQM standards application and nurses' commitment in KHCC .
3. To write recommendations that may enhance nurses' commitment in KHCC .

1.5 Study limitation

The following limitations should be kept in mind before generalizing the findings of the study:

1. The stated objectives are not all measured because some are not realistic, some are difficult to measure, and some are beyond the scope of this study.
2. The generalization of the findings of the study is limited to the population of the study.

1.6 Previous studies

Despite extensive research on TQM standards , the issue of linking TQM standards with commitment has been found to be less focused. Specially there are no studies(for the researcher knowledge) combined the program of the Joint Commission International Accreditation and the commitment of the nurses at work ,however there are limited number of published researches highlighted separately these variables . As shown in table (1.1), a study conducted by(Han, etal .1995) entitled " Organizational Commitment in South Korea", data was collected by questionnaires. Two endogenous variables, job satisfaction and organizational commitment are assessed , The study concluded that the variables which were important in explaining organizational commitment were : job satisfaction , opportunity to meet expectations, work involvement, autonomy, role conflict, supervisory support, and distributive justice.

Another study is conducted by (Donahue and Vanustenberge, 2000) which is entitled "Joint Commission International Accreditation : Relationship to Four Model of Evaluation " , the objective of describing the components of the new Joint Commission International (JCI) accreditation program for hospitals, and compare this program with the four quality evaluation models described under the ExPeRT project (visitatie, ISO, EFQM, organizational accreditation). Results of the study were: 1. all the models have in common with the JCI program, they all use criteria or standards, and also use of external reviewers. 2. The JCI program provides a comprehensive framework for TQM in an organization .The Conclusion of the study was that the international accreditation program provides a framework for the convergence and integration of the strengths of all the models into a common health care quality evaluation model.

A study titled “TQM practices and affective commitment: A case of Malaysian semiconductor packaging organizations”, the purpose was to examine the effects of the five elements of TQM practices on employees’ affective commitment within six major Malaysian semiconductor contract manufacturing organizations. Sample size of the study was 377 resulting in a response rate of 75.4 percent. Regression analyses were employed to explore the relationship between TQM practices and affective commitment. Findings of the study reveal that teamwork, organizational communication, organizational trust and teamwork are positively associated with affective commitment. The study also shows that the organizational communication is perceived as a dominant TQM practice and is strongly associated with affective commitment. (Boona,etal,2006). Kanter,(1993) cited in Mary etal ,(2007) found that, “employees who perceived higher level of access to opportunity ,support, information and resources had higher levels of job satisfaction and organization commitment.

A study by (AL – Mansour ,2010) entitled "The Impact of Total Quality Management Practices on Employee Empowerment in King Khalid Hospital ", in Saudi Arabia. This study tested the impact of TQM practices (training , teamwork , top management commitment , continuous improvement, and customer satisfaction) on employee empowerment . Results indicated that TQM practices have the favorable effect on employee empowerment .

Table (1.1)

Summary of previous studies

Researcher	**Study Title**	**Year**	**Place**	**Sample**	**Variables**	**Measurement Instrument**	**Results**
Han, N. C., Ko, J., Price, J. L. & Muler, C. W	Organizational Commitment in South Korea	1995	South Korea	(511) hospital employees and represents all occupational categories in the university hospital	job satisfaction and organiza-tional commitment	questionnaires	Satisfa-ction (.494) has largest total effect on commi-tment
Donahue KT, vanOstenb-erg P.	Joint Commission International accreditation: relationship to four models of evaluation	2000	USA	Hospitals	JCIA, ExPeRT project	On-site standards based survey of the health care organization.	JCIA provides a frame-work for the conver-gence and integration of the strengths of all the models into a common health care quality evaluation model.
Ooi Keng Boona Safa, Mohammad Samaun Arumugam, Veeri	TQM practices and affective commitment: A case of Malaysian semiconductor packaging organizations	2006	Mala-ysia	377	TQM practices , employees' affective commitment	questionnaires	TQM enhance commitent
Mary etal	The Effect of Empowerment on Attitudes and Performance: The Roleof Social Support and Empoerment Beliefs	2007	-	-	Empowerment and, attitude and performance	questionnaires	Empow-erment enhance organiz-ational commitment
AL – Mansour	The Impact of Total Quality Management Practices on Employee Empowerment in King Khalid Hospital	2010	Saudi Arabia	(320) employees at king khalid hospital	TQM practices, employee' empower-ment	questionnaires	TQM practices has impact on empow-erment

1.7 What distinguishes this study ?

What distinguishes this study from other previous studies in the areas of total quality management (TQM) , that it aims to link the concepts of TQM standards and the workers' commitment specially nurses in health care organizations.

This study characterized itself as an attempt to discuss the concepts of TQM and commitment from the perspective of Joint Commission International Accreditation (JCIA) in hospitals , trying to enhance the awareness and level of nurses commitment .

CHAPTER 2

Literature review

2.1 Total Quality Management

The root of Total Quality Management (TQM) can be traced back to early 1920's . The production of quality control ideas, and the concept was developed in Japan in the late 1940's and 1950's and pioneered by Americans Freigenbum, Juran and Deming. "Total quality management (TQM), in its total effect is to involve all stakeholders in organization in programs that will increase organizational productivity, profitability, efficiency, job satisfaction, employee morale, and continuous product quality improvement."(Njie,et al,2008)

Meanwhile, (Hill ,1991) in his report pointed out that "TQM is based on three fundamental principles : customer orientation, process orientation and continuous improvement". Looking at some of these fundamental principles, the most important for every stakeholder is to have a purposeful understanding of TQM, its importance and positive effect on organizational structure.

Although quality techniques have been applied for over a decade in manufacturing industries, TQM is relatively newcomer to hospital management. Interest in the idea increased in the late 1980s after 21 hospitals participated in a project designed to demonstrate the application of TQM to health-care delivery. The hospitals reported the results of their efforts in June 1988. (Zablocki,1993).

Although relatively few hospitals have well-established TQM programs in place today, quality-management programs may be a requirement in the near future. The Joint Commission Accreditation of Healthcare Organizations (JCAHO) which is one of theses programs, is an influential body that accredits 90 percent of U.S. hospitals . (Zablocki,1993).

2.1.1 TQM Standards , Joint Commission International Program

“Accreditation is a process in which an entity, separate and distinct from the health care organization , that assesses the health care organization to determine if it meets a set of requirements, (standards) designed to improve the safety and quality of care.” (Earn,et al,2011) .

Accreditation is usually voluntary. It’s standards are usually optimal and achievable . Accreditation reflects a visible commitment by an organization to improve the safety and quality of patient care, to ensure a safe care environment, and to continually work to reduce risks to patients and staff. Accreditation has gained worldwide attention as an effective quality evaluation and management tool. (Earn,et al,2011) .

2.1.1.1 Patient-Centered Standards, Provision of care:

Treating patients as partners, involving them in planning their health care and encouraging them to take responsibility for their own health(Lowes,1998). It includes :patient safety ,access to care and continuity of care, patients and family rights ,assessment of patients ,care of patients , anesthesia and surgical care, medication management and use ,and patient and family education. (Earn ,et al, 2011) .

A. Patient Safety

Patient safety was defined by the Institute Of Medicine (IOM) as “the prevention of harm to patients.” In the past, nursing’s responsibility toward patient safety had been viewed in narrow aspects of patient care, for example, avoiding medication errors and preventing patient falls. While these dimensions of safety remain important within the nursing purview, the breadth and depth of patient safety and quality improvement are far greater. (Mitchell,2008).

International Patient Safety Goals aim to promote patient safety. The goals highlight problematic areas in health care and describe evidence- and expert-based consensus solutions to these problems. Goals are : identify patients correctly, improve effective communication, improve the safety of high-alert medications, ensure correct-site, correct-procedure, correct-patient surgery, reduce the risk of health care–associated infections, and reduce the risk of patient harm resulting from falls. (Earn,et al,2011) .

B. Access to Care and Continuity of Care

In literature "Care over time by a single individual or team of health care professionals" means continuity of patient care in hospitals . (Cabana,et al ,2004)

Health care organizations should consider the care it provides ,as part of an integrated system of services . That system applied by health care practitioners and professionals to enhance the levels of care and maintain it . It's based on patient – centered standards starting from patient admission to the organization , continuity of this care, referral , till discharge and follow-up. (Earn,et al,2011).

C. Patients and Family Rights

Patient care outcomes are improved, when patients and their families or those who make decisions on their behalf , are involved in care decisions and processes taking in considerations cultural expectations . Promote patient's rights in a health care organization done by defining those rights, and then educating patients and staff about them . Staff are taught to understand and to respect patients' beliefs and values and to provide considerate and respectful care that protects patients' dignity. (Earn,et al,2011).

D. Assessment of Patients

It is the process of identifying patient condition , needs , abilities and preferences . Most assessment tests are done by nurses , medical crewmembers, physicians or other qualified medical personnel . Health assessments done through interview with patients , observation for any signs or symptoms might display, review of patient's medical and social history. Health assessment involves physical assessment, pain assessment, social assessment, and spiritual assessment. (Rigdon,2011).

All patients cared for by the organization have their health care needs identified, through an established assessment process. And reassessed by qualified individuals like physicians, nurses, and other individuals and services responsible for patient care .The patient’s reassessment done at intervals based on their condition and treatment to determine their response to plan for continued treatment or discharge. (Earn,et al,2011).

E. Care of patients

Health care organization’s main purpose is patient care. Providing the most appropriate care in a setting ,which supports and responds to each patient’s unique needs , requires a high level of planning and coordination . Activities basic to patient’s care, include planning and delivering care , monitoring patient to understand the results care, modifying care when necessary, completing the care, and planning the follow-up. Many physicians, nurses, pharmacists, rehabilitation therapists, and other health care practitioners may carry out these activities. Each practitioner has a clear role in patient care. That role is determined by licensure, credentials, certification, laws and regulations, skills, knowledge, and experience, and organization policies or job descriptions. Some care may be carried out by the patient, his or her family or other trained caregivers. (Earn,et al,2011).

F. Anesthesia and Surgical Care

The use of anesthesia, sedation, and surgical interventions are common and complex processes in a health care organization. They require complete and comprehensive patient assessment, integrated care plan , continuous patient monitoring , rehabilitation, and eventual transfer and discharge. Anesthesia and sedation are commonly viewed from minimal sedation to full anesthesia (Earn,et al,2011).

G. Patient and Family Education.

Patient and family education helps patients better participate in their care and care plan decisions. Many different staff in the organization can give education to patients and families , specially when the patient interacts with his or her physician(s) or nurse(s). Others may provide education when they provide specific services, such as rehabilitation , nutrition therapy, or prepare the patient for discharge and continuing care. Because many staff help educate patients and families, it is important that staff members coordinate their activities and focus on what patients need to learn. (Earn,et al,2011).

Effective education thus begins with an assessment of the patient's and family's learning needs. This assessment determines not only what needs to be learned but how the learning can best occur. Learning is most effective when it suits an individual's learning preferences, religious and cultural values, and reading and language skills. Learning is also affected by when it occurs in the care process. (Earn,et al,2011).

H. Medication Management

Medication management is the monitoring of medications a patient takes to confirm that the patient is complying with a medication regimen, while also ensuring the patient is avoiding potentially dangerous drug interactions and other complications. (Smith, 2003).

Medication management encompasses the system and processes an organization uses , to provide appropriate therapy to its patients. This is usually done by a multidisciplinary and coordinated efforts of staff in a health care organization . Medication management successfully achieved through applying the principles of effective process design, implementation, and improvement to the selecting, procuring, storing, ordering, prescribing, transcribing, distributing, preparing, dispensing, administering, documenting, and monitoring of medication therapies. (Earn,et al,2011). The purpose of administrating medication is either for diagnosis, treatment, or prevention of a medical illness or condition.(Potter,et al,1997).

The central action of medication administration involves actual and complete conveyance of a medication to the patient. However, there is a wide set of practices required to achieve safe, effective outcomes ,and to prepare for and evaluate the outcome of medication administration .(Potter,et al,1997).

Preparation for safe medication administration requires a background of education and hands-on training. New nurses and other professionals should be trained , and supervised until they demonstrate an appropriate level of knowledge , and competent skills for independent medication administration .As well the patient should be monitored to make sure the medication has had the desired effect. (Potter,et al,1997).

2.1.1.2 Health Care Organization Management Standards.

A. Quality Improvement and Patient Safety.

Integral to overall improvement in quality is the ongoing reduction in risks to patients and staff. Such risks may be found in clinical processes as well as in the physical environment. This approach includes : leading and planning the quality improvement and patient safety programs, designing new clinical and managerial processes , measuring how well processes

work through data collection , analyzing the data , and implementing and sustaining changes that result in improvement. Both quality improvement and patient safety programs are leadership driven , seek to change the culture of an organization , proactively identify and reduce risk and variation , use data to focus on priority issues, and seek to demonstrate sustainable improvements. (Earn,et al,2011).

B. Prevention and Control of Infections

The goal of an organization's infection prevention and control program is to identify and to reduce the risks of acquiring and transmitting infections among patients, staff, health care professionals, contract workers, volunteers, students, and visitors.

The infection risks and program activities may differ from organization to organization , depending on the organization's clinical activities and services, patient population(s) served, geographic location, patient volume ,and number of employees. (Earn,et al,2011).

2.1.1.3 Human Resource Management.

Human resources, when pertaining to health care, can be defined as the different kinds of clinical and non-clinical staff responsible for public and individual health intervention . The most important of the health system inputs is the performance , the benefits the system can deliver depend largely upon the knowledge, skills and motivation of individuals responsible for delivering health services.(Stefane,et al,2006).

A. Hiring and Selecting

Recruiting, evaluating, and appointing staff are best accomplished through a coordinated, efficient, and uniform process. It is also essential to consider applicant skills, knowledge, education, and previous work experience. It is particularly important to carefully review the credentials of medical and nursing staff, because they are involved in clinical care processes

and work directly with patients. Directors in hospitals consider the services which are provided and planned by the departments or services, and the education, skills, knowledge, and experience needed by the department's professional staff to provide those services. They develop criteria reflecting this consideration and then select staff. Directors may also work with human resources or other departments in the selection process based on the director's recommendation. (Earn,et al,2011).

B. Compensation and Incentives

The number of factors that influence staff retention seem overwhelming. In several surveys, the nurse's work environment (including compensation, long hours, shift changes, increased workload, not being involved in the decision-making process, and job stress) is identified as the primary problem related to retaining nursing staff. One interesting concern of nurses in hospitals was the local proliferation of recruitment bonuses . Incentives encourage short-term commitment to an organization and encourage "job hopping." Compensation is a key issue in retention.(Gothberg,2000).

C. Training

The organization's staff are the primary source of contact with patients, families, and visitors. Thus, they need to be educated and trained to carry out their roles in identifying and reducing risks, protecting others and themselves, and creating a safe and secure facility. Each organization must decide the type and level of training for staff and then carry out and document a program for this training and education. Including group instructions, printed educational materials, a components of new staff orientation, or some other mechanisms that meets the organization's needs. (Earn,et al,2011).

D. Performance Management.

Performance management is a theory of modern Human Resource Management areas, originated in the 70s of last century in the United States, It is composed of the organizational performance management systems and employee performance management system .It is the integration of the work of individual employees or managers and the whole purpose of the organization together, to support the organization's overall business objectives. for medical work, the quality is the key.(Xinxin, and Lanzhen,2006) .

The organization must have an effective process to gather, to verify, and to evaluate the nursing staff 's credentials (license, education, training, and experience).Also standardize procedures to identify job responsibilities , work assignments based on the nursing staff member's credentials ,requirements . And standardize procedures to enhance nursing staff participation in the organization's quality improvement activities , including evaluating individual performance when indicated. (Earn,et al,2011).

2.2 Commitment Concepts

The literature defines commitment as an employee's level of attachment to some aspect of work. Various authors have been instrumental in identifying types of employee commitment as critical constructs in understanding the attitudes and behaviors of employees in an organization. Meyer et.al. (1997) Identify more than 25 employee commitment concepts and measures, they group them into three foci : commitment to work or job, commitment to career or profession and commitment to organization.(Gupta ,2008).

Over the years, two basic approaches have been used to study organizational commitment: commitment-related attitudes and commitment-related behaviors. Each approach offers a slightly different definition. The commitment-related attitude approach defines organizational

commitment as a partisan, affective attachment to the goals and values, and to the organization for its own sake, apart from its purely instrumental worth (Buchanan, 1974).

Porter .et al , (1976) define it as the willingness of an employee to exert a high level of effort on behalf of the organization, a strong desire on behalf of the organization, and an acceptance of its major goals and values. According to Mowday, et al (1979), attitudinal commitment represents a state in which an individual identifies with a particular organization and its goals, and wishes to maintain membership in order to facilitate these goals. The commitment-related behavior approach focuses on a behavioral pattern, guided by internalized normative pressures to act in a way, that meets organizational goals and interest (Wiener, 1982).

Meyer and Allen (1997) present three approaches ,define their three dimensional constructs as affective, continuance and normative commitment. These components of commitment have been identified in the literature:

1. Affective Commitment: The individuals affective or emotional attachment to the organization.

2. Continuance Commitment: The perceived costs associated with leaving the organization

3. Normative Commitment: An individuals felt obligation to remain with the organization .

Researchers, such as Steers, Mottaz and Rowden, argue that its all create rewarding situations, intrinsically conductive to the development of affective commitment. In addition, age and organizational tenure are considered to be positively associated with affective commitment. (Gupta ,2008).Furthermore, organizational change researches show that organizational commitment was enhanced by perceived readiness to organizational change (Madsen et al., 2005), change communication (Elving and Bennebroek Gravenhorst, 2009) and employee acceptance of organizational change (Iverson, 1996). According to Meyer and Allen

(1997) employees who are committed to the organization will also commit to any organizational changes that are required.

Resistance, in turn, is expected to correlate with a number of work-related consequences, such as job satisfaction and organizational commitment (Rush, et al ,1995 and Schweiger & DeNisi, 1991). The primary reason why managers try to avoid resistance to change is clearly , because it has negative consequences for the organization. Although not focusing on the concept of resistance, a number of studies found that conditions of change (e.g., uncertainty, perceived pressure, which are here viewed as potential antecedents of resistance) predict organizational outcomes such as job satisfaction, organizational commitment, and intention to leave the organization (Rush et al., 1995; Schweiger & DeNisi, 1991). It is possible that these conditions of change influence employees' attitudes towards the specific change, which in turn could affect their general attitude toward the organization.(Oreg ,2006).

2.3 TQM Standards and Nurses' Commitment.

The application of the Total Quality Management (TQM) philosophy within the health care sector would enhance the development of nursing power, leadership and knowledge .TQM challenges conventional management techniques , as it requires a participative management style in order to be effective. There are many potential benefits for nurses, when quality assurance monitoring within a hierarchical management structure, is replaced with a focus on continuous quality improvement by every member of staff .These benefits are described within the context of both organizational and personal commitment to Total Quality Management.

2.3.1 Strategies to commitment

Organizations can use various strategies to increase employee commitment. This strategies include: induction and training , relationships with managers, relationships with colleagues,group membership, organizational justice and trust, promotion, work-life balance, job satisfaction, pay and reward.(Simiyu , et al ,2009).

Prior research suggests that work experiences, personal and organizational factors serve as antecedents to organizational commitment (Allen & Meyer, 1990, 1996; Eby, Freeman, Rush, & Lance, 1999; Meyer & Allen, 1997). One such personal and organizational factor that is considered a key determinant of organizational commitment is leadership (Mowday et al., 1982). In particular, there is considerable research now available suggesting , that transformational leadership is positively associated with organizational commitment in a variety of organizational settings and cultures (Bono & Judge, 2003; Dumdum et al., 2002; Koh, Steers, & Terborg, 1995; Lowe et al., 1996; Walumbwa & Lawler, 2003). Work by Shamir and colleagues (Shamir,et al, 1993; Shamir, et al, 1998) suggests that transformational leaders are able to influence followers' organizational commitment by promoting higher levels of intrinsic value associated with goal accomplishment, emphasizing the linkages between follower effort and goal achievement, and by creating a higher level of personal commitment on the part of the leader and followers to a common vision, mission, and organizational goals. Transformational leaders influence followers' organizational commitment by encouraging followers to think critically by using novel approaches, involving followers in decision-making processes, inspiring loyalty, while recognizing and appreciating the different needs of each follower to develop his or her personal potential (Avolio, 1999; Bass & Avolio, 1994; Yammarino, et al, 1993). By encouraging followers to seek new ways to approach problems and challenges, and identifying with followers' needs, transformational leaders are able to

motivate their followers to get more involved in their work, resulting in higher levels of organizational commitment (Walumbwa & Lawler, 2003). This view was supported by prior research that showed organizational commitment was higher for employees , whose leaders encouraged participation in decision-making (Jermier & Berkes, 1979; Rhodes & Steers, 1981), emphasized consideration (Bycio, Hackett, & Allen, 1995), and were supportive and concerned for their followers' development (Allen & Meyer, 1990, 1996).

2.3.2 Provision of care

Provision of care is an important part of JCIA program , which contains the patient safety , patient education and patient assessment , that is applied to maintain the TQM .(Earn,et al,2011).

Quality management program is identified as an important factor in implementing continuous quality improvement and total quality management, and in promoting patient safety culture and climate for error reduction in health care organizations (Tutuncu et al., 2007b).

If an organization is to initiate and to maintain improvement and to reduce risks to patients and staff, leadership and planning are essential. This leadership and planning come from the governing body of the organization along with those , who manage the clinical and managerial activities of the organization on a daily basis. Collectively they represent the leadership of the organization. The leadership is responsible for establishing the organization's commitment, approach to improvement and safety, and program management and oversight. The leadership develops the quality and patient safety plan and, through its vision and support, shapes the quality culture of the organization.

The governing body holds ultimate accountability for quality and patient safety in the organization, and, thus, it approves the quality and patient safety plan ; on a regular basis, it

receives and acts on reports related to the organization’s program to improve quality and patient safety . (Earn,et al,2011).

An important issue that has run through the whole history of TQM , is the place of workforce commitment to the process of TQM implementation. Hospital accreditation demonstrates the health organization’s commitment to quality and patient safety. (Sutherasan , Aungsuroch ,2008) .

Patient education : to thrive in today's health care environment , hospitals are constantly striving to exceed their customers' expectations in delivering quality care in a cost-effective manner. Meeting the patient educational needs of the consumer is one well-recognized aspect of quality care. (Patyk , et al ,2000)

Health care organizations educate patients and families so that they have the knowledge and skills to participate in the patient care processes and care decisions. Each organization builds education into care processes based upon its mission, services provided, and patient population. Education is planned to ensure that every patient is offered the education he or she requires. The organization chooses how it organizes its educational resources in an efficient and effective manner. (Earn,et al,2011).

Patient assessment : Joint Commission standards focus on assessing organizational performance , and stimulating continuous improvement to achieve optimum outcomes. JCIA evaluates compliance based on defined key elements of an organization’s commitment to quality care including assessment of patients. Accuracy of patient assessment and diagnostic information were indicators of quality.

In describing quality in hospitals, nurses indicate that they look for elements of employee participation and staff empowerment, commitment to quality, stability, and evidence that nurses were valued within the organization.(Stichler, Weiss, 2000) .

Applying quality systems, improving performance and commitment with the standards regarded as, with more benefits to the health institutions applying the systems according to the best clinical practices, recognized internationally and administratively .(Salah M. Diab,2011)

2.3.3 Medication management

Medications , as an important resource in patient care, must be organized effectively and efficiently. Medication management is not only the responsibility of the pharmaceutical service , but also of managers and health care practitioners. How this responsibility is shared depends on the organization’s structure and staffing. Effective medication management includes all parts of the organization, inpatient, outpatient, and specialized units. To ensure efficient and effective medication management and use, the organization conducts a systems review at least once a year. The annual review pulls together all information and experience related to medication management. The review allows organizations to understand the need and priority of continued system improvements in quality and safety of medication use . (Earn,et al,2011).

The work necessary for the reduction of medication errors begins with organizational commitment and creating an environment where safety is the priority . While new policies and procedures on medication management alone will not change behavior, they reflect the organization’s commitment to medication safety and the implementation of best practices to prevent medication errors. (Laurie Herndon, Jane Niemi,2007)

2.3.4 Infection prevention and control

To address the issue of health care associated infections, the Joint Commission Accreditation of Healthcare Organizations , has in recent years further strengthened its

infection control standards and established a national patient safety goals , specifically related to this issue.(Murphy-Knoll, 29007)

The infection prevention and control process is integrated with the organization’s overall program for quality improvement and patient safety . Quality improvement includes using measures related to infection issues that are epidemiologically important to the organization. (Earn,et al,2011).

Organizations that make infection control part of the competency assessment program , also demonstrate a commitment to improving the quality of care patient and safety by reducing infections. (Murphy-Knoll, 29007)

2.3.5 Human Resource Management (HRM)

Developing quality across the entire firm can be an important function of the human resource management (HRM) department. HRM should act as the pivotal change agent necessary for the successful implementation of TQM. HRM can act as senior management's tool in implementing TQM in two fundamental ways. First, by modeling the TQM philosophy and principles within its departmental operations, the HR department can serve as a beachhead for the TQM process throughout the company. Second, the HR department, with senior management's support, can take the TQM process company-wide by developing and delivering the long-term training , and development necessary for the major organizational culture shift required by TQM. Human resource management can play a vital role in implementing , and maintaining a total quality management process. HR managers are responsible for recruiting high-quality employees, the continual training and development of those employees, and the creation and maintenance of reward systems. Thus, TQM controls processes that are central to achieving the dramatic cultural changes often required for TQM to succeed. Tailoring the TQM

cultural development program to the firm's circumstances is essential in overcoming resistance to change and moving beyond simple compliance toward a total commitment . (Clinton ,et al , 1994).

Compensation : Organizations normally develop strategies for total compensation (base pay, variable pay and benefits) in general and specifically for group variable pay. Based on this, they select and include TQM outcome measures. (Zingheim and Schuster,1992).

Just and fair compensation is one of the prerequisites for sustained motivation , on the part of employees needed for continuous improvement in quality. Quality management advocates for skill based compensation ,rather than job based compensation. It also prefers group incentives over individual incentives , in order to promote team spirit among employees. Merit pay and gains sharing are some of the incentives , that have emerged in recent years to motivate employees to contribute effectively towards quality improvement.(Jadoon and Jabeen ,2006)

The HRM system of employees' motivation to perform (e.g., compensation, promotion, incentives), influences their attitudes (motivation, commitment, satisfaction), (Katou , 2008)

Hiring : Ooi, at el ,(2007) identified that HRM is considered as one of the crucial subjects in the research area of management and business , for the past few decades , due to its impacts on both the individual and organizational performance as a whole. Superior human capital determines the success of a firm.(Har ,at el 2010)

Hiring and retraining competent employees proved to be one of the keys to manage quality, since quality can never be improved beyond the capabilities, training, and motivation of employees.(Al-Ghanim, 2003).

Hiring (recruitment and selection) , plays a significant role in translating principles of quality management into practice (Har ,at el 2010). For effective management of quality initiatives, the system of recruitment and selection should ensure the induction of employees ,who have the learning potential, initiative, problem solving skills, and ability to work in groups and teams. Thus, revamping of recruitment and selection process in the light of principles and values of quality management , is a critical need of an organization willing to adopt a quality culture .(Jadoon and Jabeen ,2006).

It is important to note that recruiting of high quality and committed staff , are require for achieving sustainable competitive advantage (Boxall, 1996). As pointed out by Scarbrough (2003), it is fundamental to integrate various sources of knowledge in order to recruit , and select qualified candidates with appropriate skills and attitudes. He stressed that a frequent revision of the selection approach is necessary.

Training: Kappelman and Prybutok (1995) emphasizes that training is a very important aspect in the implementation of a successful TQM program , as it provides an opportunity to inform employees about the goal of TQM , and also provide workers with the skills and knowledge needed to achieve those goals.

The Hogan Personality Inventory (HPI) was used by Cran (1994) ,to assess the validity of employee longer-term attitudinal commitment and work performance, and in service-orientation organizations involved in a TQM initiative. Found that training effectiveness on personality change ,could lead to attitudinal change on work commitment to fulfill job requirements. (Ali , et al , 2007) . Providing training will both increase affective commitment

from a social exchange perspective, and increase continuance commitment . (Barney and Wright, 1998).

Performance management : A number of scholars countered that traditional performance management practices , could be customized to support quality (e.g., Armstrong & Baron, 1998; Bowen & Waldman, 1999; Cardy, 1998; Cardy, Dobbins, & Carson, 1995; Ghorpade & Chen, 1995; Graber, Breisch, & Breisch, 1995; Masterson & Taylor, 1996). The debate resulted in several prescriptions for adapting performance management system components, to the people requirements of quality.

Considering employee competencies are a strong pillar of quality, the developmental purpose of performance management should prevail within quality driven organizations (Cardy, 1998; Waldman & Kenett, 1990). It is common knowledge that performance management systems can serve, both administrative and developmental purposes. In a quality setting, the developmental purpose is considered most meaningful (Grote, 1996).

Consequently, in quality-driven organizations, where employees are empowered to take responsibility for improving quality, employee participation in the performance management process should be encouraged as well (Armstrong & Baron, 1998) ,Such participation is expected to benefit the individual and the quality effort . (Haines , et al , 2004)

2.4 King Hussein Cancer Center (KHCC)

The KHCC is one of the most prominent comprehensive cancer centers in the Middle East ,that treat both adult and pediatric patients. KHCC treats over 3500 new cancer patients each year ,from Jordan and the region. It is equipped with state-of-the-art medical equipment and services. Hundreds of highly qualified oncologists and healthcare professionals work tirelessly, to ensure that patients receive the latest in comprehensive cancer care.

From 2002-2006, the hospital intensely focused on areas of TQM and quality control, and the recruitment of highly-qualified staff . Patients, patient's services, programs and staff exponentially have been increased at a rapid pace. The focus, from its inception, was to deliver the highest level of care in a safe environment.

KHCC has the following accreditations:

Joint Commission International Accreditation (JCI), (February 2006) , JCI Disease Specific Certification (DSC) - First Cancer Center outside of the United States, (November 2007). Hazardous Analysis and Critical Control Point (HACCP) Systems and Guidelines for its Application, (April 2008) , College of American Pathologists Accreditation (CAP), (July 2009) , Heath Care Accreditation Council of Jordan, (August 2009).

Mission and Vision of KHCC :

The mission of the King Hussein Cancer Center is to: provide comprehensive cancer care to the people of Jordan and the Middle East region , offer access to education, training and public awareness aiming at the early detection and prevention of cancer ,supply access to research in order to decrease mortality, and alleviate suffering from cancer, with the highest ethical standards and quality .

source : (http://en.wikipedia.org/wiki/King_Hussein_Cancer_Center)

Part three : theoretical framework

2.5.1 Conceptual Model

In this study of the relationship between application of Total Quality Management (TQM) and nurses' commitment in King Hussein Cancer Center (KHCC) , the dependent

variable is nurses' commitment and the independent variable is total quality management standards application as mentioned in the joint commission international accreditation (JCIA) . Most published researchers found that there is a positive relationship between total quality management and employee commitment (Boona etal ,2006) , but to the researcher best knowledge no studies were found that examined the relationship between total quality management standards as in the joint commission international accreditation program and nurses' commitment , within the health care sector in Jordan.

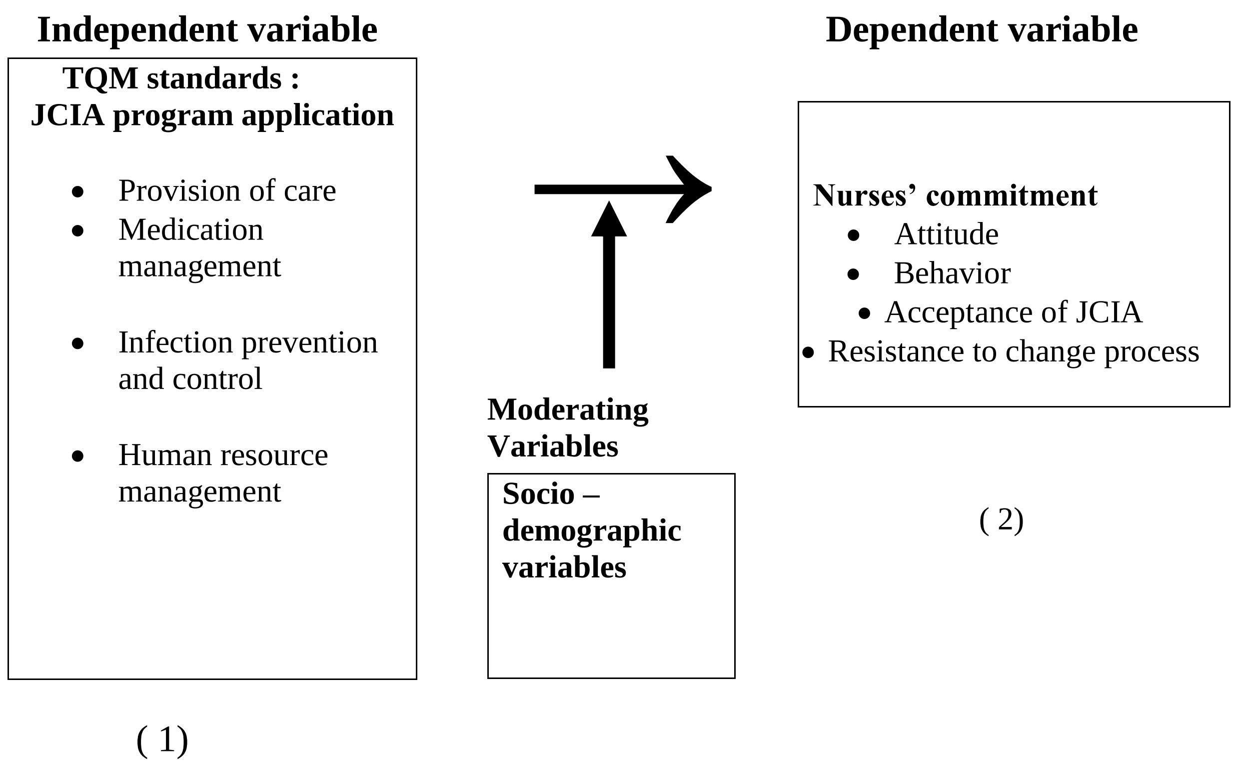


Figure 1: Conceptual Model

Sources :

(1) **JCI Accreditation Standards for Hospitals**,(2007) , 3rd edition, PDF book .

(2) Sangeetha K . , (2007) , "Employee Commitment- An Introduction" , **Icfai University Press**, P:280

2.5.2 Hypotheses

The hypotheses stated below concentrated on the application of TQM standards through JCIA program and its relation to nurses' commitment, there are two main hypotheses in this study as follow :

The first main hypothesis was : There is no significant relationship between the application of TQM standards(JCIA program)and nurses' commitment in King Hussein Cancer Center (KHCC).

This hypothesis consisted of four sub-hypotheses which are :

- H1.1: There is no significant relationship between applying provision of care and nurses' commitment in King Hussein Cancer Center (KHCC).
- H1.2 : There is no significant relationship between applying the medication management and nurses' commitment in King Hussein Cancer Center (KHCC).
- H1.3: There is no significant relationship between applying the standards of infection prevention and control, and nurses' commitment in King Hussein Cancer Center (KHCC).
- H1.4 : There is no significant relationship between applying human resource management guidelines and nurses' commitment in King Hussein Cancer Center (KHCC).

The second main hypothesis was :

There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to socio – demographic variables (age , level of education , gender , marital status , experience ,and job status) .

This hypothesis consisted of sub-hypotheses which are :

- H2.1: There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to age .
- H2.2 : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to level of education .
- H2.3 : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to gender .
- H2.4 : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to marital status .
- H2.5 : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to experience .
- H2.6: There are no significant differences in relationship between TQM standards (JCIA program)application and nurses’ commitment in King Hussein Cancer Center (KHCC) due to job status .

2.5.3 Operational Definitions

The following operational definitions have been developed based on the literature survey that been conducted for this study

2.5.3.1 Independent variable : TQM standards (Joint Commission International Accreditation JCIA) .

a) Provision of care :

Patient care is part of a nurses' role in implementing a care plan. Usually, nurses will perform patient assessment and evaluation of care while doing their patient care. (Danasu ,2007). It consist of (1) patient safety : "The freedom from accidental injury due to medical care or from medical error". (Institute of Medicine,2000) . (2) Patient education: " the process by which health professionals and others important information to patients, that will alter their health behaviors or improve their health status" (Rankin, et al,2005). (3)Patient assessment: "the process of identification of the condition, needs, abilities and preferences of a patient" (Danasu ,2007).

b) Medication Management

Medication management is "the monitoring of medications a patient takes to confirm that the patient is complying with a medication regimen, while also ensuring the patient is avoiding potentially dangerous drug interactions and other complications". (Danasu ,2007)

C) Infection prevention and control :

Is the discipline concerned with preventing nosocomial or healthcare-associated infection . (Danasu , 2007)

d) Human resources management:

Human Resource Management (HRM) is “the function within an organization that focuses on recruitment , management , and providing direction for the people who work in the organization”. HRM can also be performed by line managers. It is the organizational function , that deals with people ,and issues related to people such as compensation, hiring, performance management, and training. (Nadler ,1984)

2.5.3.2 Dependent Variables (Nurses’ commitment)

has the following Dimensions:

Attitude :

An attitude is a hypothetical construct that represents an individual's degree of like or dislike for an item. .(Stephen , 2010)

Behavior :

Human behavior is the “population of behaviors exhibited by humans and influenced by culture, attitudes, emotions, values, ethics, authority persuasion, coercion and/or genetics” (Stephen , 2010).

Acceptance of JCIA program :

“Applied psychology, which is always oriented toward change procedures in one sense of the term ‘change.’” (De Jager,2001)

Resistance to change :

Resistance to change is the “action taken by individuals and groups when they perceive a change that is occurring as a threat to them”. (De Jager,2001)

Job security

Is the probability that an individual will keep his or her job . A job with high level of job security is such that a person ,would have a small chance of becoming unemployed .(Stephen , 2010)

2.5.3.3 Moderating variables :

There are various factors that may affect relationship between application of total quality management standards and nurses’ commitment. From literature review ,the factors which may affect the workers’ commitment to organization can be : Age, gender, experience ,the importance of the performed job , job security, marital status , work hours and rewards. (Cetin,2004)

CHAPTER 3

Methodology

3.1 Research design

This research is a case study , exploratory and analytical in nature. Develops analytic and problem solving skills and allows for exploration of solutions for complex issues.

3.2 Population and Sample

The population of this study consists of (383) licensed nurses ,who have a bachelor degree in nursing working at KHCC in Jordan (as KHCC employees statistics , 2011) . To develop a representative sample from this population , the sample utilizes Krejcie and Morgan (1970) and Cohen (1969) table (Sekaran , 2003) .The sample represents (191) licensed nurses working in KHCC , who are providing care in different departments .

3.3 Measurements of variables

In this study , as shown in figure (1) the dependent variable is (Nurses' Commitment) and the independent variable is(Total Quality Management Standards) , and the demographic variables are (age , level of education , gender **,** marital status **,** experience , and Job status).

3.3.1 Total Quality Management Standards :

In this study TQM standards are identified with four dimensions : (1) Provision of care that includes patient safety , patient education , and patient assessment . (2) Medication management .(3) Infection prevention and control . (4) Human resource and management that

consist of compensation ,hiring , training , and performance management .It will be measured through questions 1- 34. (Pandi ,et al , 2007 ; and Earn,et al,2011)

3.3.2 Nurses' Commitment

Nurses' commitment consist of the following Dimensions : (1) Attitude . (2) Behavior . (3) Acceptance of JCIA program .(4) Resistance to change process . (5) Job security. It will be measured by the questions 35-49 .(Meyer and Allen, 1997)

3.4 Measuring Instrument

All questions are adopted from previous studies on TQM .The research questionnaire consists of two sections: the first section is about participants personal information , such as : age , level of education , gender , marital status ,experience , job status .The range of ages in question 1 were taken from the department of statistics in Jordan .Questions from 2-6 in section one were taken from previous studies of TQM.(AL – Mansour ,2010, Boona,etal,2006) The second section consists of the questions intended to measure the research variables namely , (nurses' commitment in KHCC and application of TQM standards through JCIA program) . Questions from 1-6 measure the provision of care – patient safety and its relation with other dimensions of dependent variable . Questions from 7-11 measure the dimension of provision of care –patient education its relation with other dimensions of dependent variable. Questions from 12 – 16 measure the dimension of provision of care – patient assessment and its relation with other dimensions of dependent variable . Questions from 17 – 21 measure the dimension of medication management and its relation with other dimensions of dependent variable . Questions from 22-26 measure the dimension of infection prevention and control and its relation with other dimensions of dependent variable . Questions from 27-31 measure the dimension of human resources and its relation with other dimensions of dependent

variable . The questionnaire papers were delivered by hand to each respondent , and was collected in the same way .

3.5 Reliability of the MI (Measuring Instrument)

Reliability is defined as obtaining stable results over time. In this study, the researcher used Coefficient Cronback's Alapha to validate the data. Accordingly, to Sekaran (2003), Cronback's Coefficient Alapha is a popular test for reliability which measures the correlation of scale with the sum of remaining variables.

Cronback's Coefficient Alpha was used to test the reliability of the scale ,and (CA) was ranged between 0.846 for nurse's commitment to 0.947 for provision of care , and all the (CA) was acceptable because it was more than (0.60) as it shown in table (3.1)

Table (3.1)

Reliability coefficient for the study variables.

Variable	CA
Provision of care	0.947
Medication management	0.929
Infection prevention and control	0.870
Human resources management	0.912
Nurse's commitment	0.846

3.6 Validity of the MI (Measuring Instrument)

The validity of a questionnaire is defined as its ability to measure and describe what it is supposed to measure and describe. The researcher sought feedback on the questionnaire from a number of professors at the university of Jordan, The items were refined and improved accordingly.

3.7 Statistical techniques :

In this research descriptive statistics was used, to describe the characteristics of the sample and the responses to the questionnaires . The hypotheses of this research were tested through statistical package for social science (SPSS) . Using theses statistical methods :

a) Mean and standard deviation

b) Pearson's correlation and multiple regression analysis

In statistics, the Pearson product-moment correlation coefficient (sometimes referred to as the PPMCC, and typically denoted by r) is a measure of the correlation (linear dependence) between two variables X and Y, giving a value between +1 and −1 inclusive. It is widely used in the sciences as a measure of the strength of linear dependence between two variables. It was developed by (Karl Pearson) from similar but slightly different idea introduced by (Francis Galton)in the 1880s.The correlation coefficient is sometimes called "Pearson's r."

Definition

Pearson's correlation coefficient between two variables is defined as the covariance of the two variables divided by the product of their standard deviations:

$$\rho_{X,Y} = \frac{\mathrm{cov}(X,Y)}{\sigma_X \sigma_Y} = \frac{E[(X-\mu_X)(Y-\mu_Y)]}{\sigma_X \sigma_Y},$$

The above formula defines the population correlation coefficient, commonly represented by the Greek letter ρ (rho). Substituting estimates of the co- variances and variances based on a sample gives the sample correlation coefficient, commonly denoted r :

$$r = \frac{\sum_{i=1}^{n}(X_i-\bar{X})(Y_i-\bar{Y})}{\sqrt{\sum_{i=1}^{n}(X_i-\bar{X})^2}\sqrt{\sum_{i=1}^{n}(Y_i-\bar{Y})^2}}.$$

An equivalent expression gives the correlation coefficient as the mean of the products of the standard scores. Based on a sample of paired data (Xi, Yi), the sample Pearson correlation coefficient is

$$r = \frac{1}{n-1} \sum_{i=1}^{n} \left(\frac{X_i - \bar{X}}{s_X} \right) \left(\frac{Y_i - \bar{Y}}{s_Y} \right)$$

Where $\frac{X_i - \bar{X}}{s_X}, \bar{X}, \text{ and } s_X$

are the standard score, sample mean, and sample standard deviation, respectively.

c) t test

A t-test is any statistical hypothesis test in which the test statistic follows a distribution, if the null hypothesis is supported. It is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. When the scaling term is unknown and is replaced by an estimate based on the data, the test statistic (under certain conditions) follows a distribution.

d) ANOVA :

In statistics, analysis of variance (ANOVA) is a collection of statistical models, and their associated procedures, in which the observed variance in a particular variable is partitioned into components attributable to different sources of variation. In its simplest form , ANOVA provides a statistical test of whether or not the means of several groups are all equal, and therefore generalizes t-test to more than two groups. Doing multiple two-sample t-tests would result in an increased chance of committing a type I error. For this reason, ANOVAs are useful in comparing two, three or more means.

CHAPTER 4

Data analysis and hypotheses testing

4.1 Sample characteristics

Table (4.1) shows the characteristics and socio-demographic variables

of the studied sample

Table (4.1)

Sample distribution according to the socio-demographic variables.

Variable	Frequency	Percent
Gender		
Male	76	51.7
Female	71	48.3
Total	147	100%
Age		
20-30	110	74.8
31-40	29	19.7
41-50	7	4.8
Over 51	1	.7
Total	147	100%
Education level		
Less than BA	4	2.7
BA	115	78.2
High diploma	12	8.2
Master degree or more	16	10.9
Total	147	100%
Status		
Married	74	50.3
Single	73	49.7
Divorced	0	0
Widowed	0	0
Total	147	100%
Experiences		
Less than 1 years	34	23.1
1-2	29	19.7
3-5	54	36.7
6-10	25	17.0
10 over	5	3.4
Total	147	100%
Job status		
Non managerial	101	68.7
First level supervisors	22	15.0
Middle management	22	15.0
Top management	2	1.4
Total	147	100%

As shown in Table (4.1) which indicates that 51.7% of the respondents were males , while 48.3% of them were females. Also 74.8% of the respondents their age ranged between 20-30, while 19.7% of them their age were 31-40, and 4.8% of the sample age 41-50, while 0.7% of them their age were more than 51.

Moreover 2.7% of the respondents not earn BA, 78.2% of them are graduated with BA, 8.2% of them earn high diploma, and 10.9% of them have master or above. 50.3% of the respondents are married, 49.7% of them are single, and 0% of them are divorced or widowed. 23.1% of the respondents have less than 1 year experience, 19.7% of them have 1 year experience , 36.7% of them have 3-5 years of experience, 17% of them have experiences 6-10 years, and 3.4% of them have experience more than 10 years.

As for the work status 68.7% of them working in Non managerial Jobs, 15% working in first level supervisors, 15% of them working in middle management, and1.4% of them working in top management. Male nurses were more than female nurses , most of the respondents age were between 20-30 ,with experience of 3-5yrs in the job .Most of the respondents have educational level of B.A , which means they have the minimal requirement to perform the job. Job status for the majority was non managerial positions , which means most of the sample nurses they have direct contact with the patients , and apply the standards of TQM by hand.

4.2 Analyzing statements

The sample response were described ,through the values of means and standard deviations for each statement of the questionnaire . Since the likert scale was used , the general attitude s of the sample responses for the fields of application of TQM standards (JCIA program) , and nurses' commitment , were described through the following formula :

$$\frac{\text{(Upper limit – lower limit)}}{\text{Number of levels}} = \frac{(5-1)}{3} = 1.33$$

Table (4.2)

The range of general attitudes and means

Means	General attitude
5 - 3.67	High
3.66 - 2.34	Moderate
2.33 – 1	Low

Table (4.2) shows the range of general attitudes of the sample respondents, according to the means using the previous formula .This will be used to evaluate the general attitudes of the respondents for each statement of the questionnaire , that been distributed around them . As mentioned in the tables below the general attitudes of the respondents ranged between high , moderate , and low according to the means values of each statement of the questionnaire.

Mean and standard deviation were used to describe attitudes toward the items of the questionnaire . The grand mean value of (3.98) , (4.06) ,(4.07),(3.75) , reflects positive attitude towards provision of care (patient safety , patient education , patient assessment) , medication management , infection prevention and control, human resource management and employee commitment (3.49) as showing table (3.3) . With comparing the values of means for the four component of the dependent variable ,TQM standards application , the infection prevention and control (4.07) was the highest . And the human resource management(3.75) was the lowest , which indicates the nurses attitude towards, infection prevention and control

was the highest and HRM was the lowest .But at general all the four , the nurses attitude toward them was high.

Table (4.3)

Means and standard deviation for the study variables

Variable	Means	STD	Evaluation	Rank
Provision of care	3.98	0.660	High	3
Medication management	4.06	0.742	High	2
Infection prevention and control	4.07	0.732	High	1
Human resources management	3.75	0.738	High	4
TQM	3.96	0.623	High	
Nurse’s commitment	3.49	0.64	High	

Domain One : Provision of care

Table (4.4) shows the analyzing statements of the questionnaire items , that measure the first variable of the independent variables TQM standards (JCIA program) application , which is patient safety as part of provision of care .

Table (4.4)

Means and standard deviation for the questionnaire items(patient safety).

	Items	Means	Std	Evaluation	Rank
Domain One : Provision of care					
1	KHCC develops an approach to improve accuracy of patient‘s identification	4.25	0.957	high	3
2	KHCC develops an approach to improve the effectiveness of communication among care givers.	3.93	0.904	high	5
3	KHCC develops an approach to improve the safety of high-alert medications.	4.29	0.922	high	2
4	KHCC develops an approach to ensuring correct-site, correct-procedure, and correct-patient surgery.	4.33	0.886	high	1
5	KHCC develops an approach to reduce the risk of health care –associated infections.	4.17	0.894	high	4

As shown in table (4.4) the mean value of (4.25) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) developed an approach to improve accuracy of patient‘s identification was high. Also the mean value of (3.93) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) developed an approach to improve the effectiveness of communication among care givers was high . The mean value of (4.29) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) developed an approach to improve the safety of high-alert medications was also high . The mean value of (4.33) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) developed an approach to ensuring correct-site, correct-procedure, and correct-patient surgery was high. The mean value of (4.17) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) developed an approach to reduce the risk of health care – associated infections also was high .The mean value of the ,KHCC develops an approach to improve the safety of high - alert medications , was the lowest one among the evaluation of the analyzing statements of patient safety . And mean value of the ,KHCC develops an approach to

correct –site, correct –procedure , and correct –patient surgery , was the highest one among the evaluation of the analyzing statements of patient safety .KHCC with the application of the standards of TQM , as mentioned in JCIA, developed an approach to increase patient safety .That was done through patient identification accurately , before giving care or doing any procedure or surgery for him. Results indicate that KHCC developed an approach to improve communication between care givers and nurses, and that means more safety for patients . There is a good nurses awareness about high alert medication in KHCC. KHCC developed approach to decrease risk of care associated infection , which is infection that can be transmitted between patients , while doing care, and that mean more patient safety.

Domain One : Provision of care

Table (4.5) shows the analyzing statements of the questionnaire items , that measure the independent variables TQM standards (JCIA program) application , which is patient education as part of provision of care .

Table (4.5)

Means and standard deviation for the questionnaire items (patient education) .

	Items	**Means**	**Std**	**Evaluation**	**Rank**
Patient education					
6	KHCC provides education that supports patient and family participation in care decisions and care processes	3.98	0.856	High	1
7	Each patient's educational needs are assessed and recorded in his or her record.	3.84	0.929	High	5
8	The patient's and family's ability to learn and willingness to learn are assessed.	3.78	0.971	High	7
9	Education and training help meet patients' ongoing health needs	3.88	0.895	High	3
10	Patient and family education includes topics related to the patient's care .	3.97	0.917	High	2
11	Education methods include the patient's and family's values and preferences.	3.82	0.963	High	6
12	Health professionals caring for the patients collaborate to provide education.	3.87	0.770	High	4

As shown in table (4.5) the mean value of (3.98) reflects that the nurses attitude towards that , the King Hussein Cancer Center (KHCC) provides education that supports patient and family participation in care decisions and care processes was high. The mean value of (3.84) reflects that the nurses attitude towards that , each patient's educational needs are assessed and recorded in his or her record was high. The mean value of (3.78) reflects that the nurses attitude towards that , the patient's and family's ability to learn and willingness to learn are assessed before educating patients was high. While the mean value of (3.88) reflects that the nurses attitude towards that , education and training help meet patients' ongoing health needs was high. The mean value of (3.97) reflects that the nurses attitude towards that , patient and family education includes topics related to the patient's care , was high. And the mean value of (3.82) reflects that the nurses attitude towards that , education methods include the patient's and family's values and preferences was high. while the mean value of (3.87) reflects that the nurses attitude towards that , health professionals caring for the patients collaborate to provide education was also high.

The mean value of the , the patient's and family's ability to learn and willingness to learn are assessed, was the lowest one among the evaluation of the analyzing statements of patient education . And mean value of the , KHCC provides education that supports patient and family participation in care decisions and care processes, was the highest one among the evaluation of the analyzing statements of patient education . KHCC provide education to patients and their families , to increase their awareness in the care given to them . That's done through doing assessment of educational needs , learning abilities, values .Increase awareness is done by professional staff . Nurses support patient education , because they believe it helps to meet patient's health needs.

Domain One : Provision of care

Table (4.6) shows the analyzing statements of the questionnaire items , that measure the independent variables TQM standards (JCIA program) application , which is patient assessment as part of provision of care.

Table (4.6)

Means and standard deviation for the questionnaire items (patient assessment).

	Items	Means	Std	Evaluation	Rank
Patient assessment					
13	All patients cared for by the organization have their health care needs identified through an established assessment process.	3.93	0.799	High	1
14	All patients are reassessed at intervals based on their condition and treatment.	3.86	0.808	High	3
15	Qualified individuals conduct the assessments and reassessments.	3.82	0.750	High	4
16	Physicians, nurses, and other individuals responsible for patient care collaborate to analyze and to integrate patient assessments	3.92	0.925	High	2
Total	**provision of care**	3.98	0.660	High	

As shown in table (4.6) the mean value of (3.93) reflects that the nurses attitude towards that , all patients cared for by the organization have their health care needs identified through an established assessment process was high . The mean value of (3.86) reflects that the nurses attitude towards that , all patients are reassessed at intervals based on their condition and treatment was high . The mean value of (3.82) reflects that the nurses attitude towards that , qualified individuals conduct the assessments and reassessments of patients was high. While the mean value of (3.92) reflects that the nurses attitude towards that , physicians, nurses, and other individuals responsible for patient care collaborate to analyze and to integrate patient assessments was high. So the total nurses attitude towards the variable provision of care was

(3.98). The mean value of the , qualified individuals conduct the assessments and reassessments, was the lowest one among the evaluation of the analyzing statements of patient assessment . And mean value of the , all patients cared for by the organization have their health care needs identified through an established assessment process , was the highest one among the evaluation of the analyzing statements of patient assessment .In KHCC there is assessment and reassessment process for patients , for providing treatment and care . This process done by qualified nurses, and all individuals responsible for patient care, collaborate to successfully do this process.

Domain two : Medication management

Table (4.7) shows the analyzing statements of the questionnaire items , that measure the independent variables TQM standards (JCIA program) application , which is medication management .

Table (4.7)

Means and standard deviation for the questionnaire items (medication management)

	Items	Means	Std	Evaluation	Rank
Domain Two :medication management					
17	Medication's use in the organization complies with applicable laws and regulations and is organized to meet patient needs.	4.16	0.868	High	1
18	An appropriate selection of medications for prescribing or ordering is stocked or readily available.	3.88	0.940	High	8
19	Medications are properly and safely stored.	4.07	0.849	High	4
20	Prescribing, ordering, and transcribing are guided by policies and procedures.	4.11	0.900	High	3
21	Medications are prepared and dispensed in a safe and clean environment.	4.14	0.907	High	2
22	KHCC identifies those qualified individuals permitted to administer medications.	4.05	0.886	High	6
23	Medication's effects on patients are monitored.	4.01	0.840	High	7
Total		4.06	0.742	High	5

As shown in table (4.7) the mean value of (4.16) reflects that the nurses attitude towards that , medication's use in the organization complies with applicable laws and regulations and is organized to meet patient needs was high. The mean value of (3.88) reflects that the nurses attitude towards that , an appropriate selection of medications for prescribing or ordering is stocked or readily available was high. The mean value of (4.07) reflects that the nurses attitude towards that medications are properly and safely stored was high . While the mean value of (4.11) reflects that the nurses attitude towards prescribing, ordering, and transcribing are guided by policies and procedures was high. The mean value of (4.14) reflects that the nurses attitude towards that , medications are prepared and dispensed in a safe and clean environment was high. And the mean value of (4.05) reflects that the nurses attitude towards that , KHCC identifies those qualified individuals permitted to administer medications was high. And the mean value of (4.01) reflects that the nurses attitude towards that medication's effects on patients are monitored was high. The mean value of (4.06) is the total of medication management ,and the attitude of nurses toward medication management was high . The mean value of the , an appropriate selection of medications for prescribing or ordering is stocked or readily available ,was the lowest one among the evaluation of the analyzing statements of medication management . And mean value of the , medication's use in the organization complies with applicable laws and regulations and is organized to meet patient needs, was the highest one among the evaluation of the analyzing statements of medication management .Results indicate there is safe handing of medication , according to laws and regulations at KHCC. Medication given to patients by qualified people , who do monitoring for medication effects on patients after administration.

Domain three : Infection prevention and control

Table (4.8) shows the analyzing statements of the questionnaire items , that measure the independent variables TQM standards (JCIA program) application , which is Infection prevention and control .

Table (4.8)

Means and standard deviation for the questionnaire items (Infection prevention and control)

	Items **Infection prevention and control .**	**Means**	**Std**	**Evaluation**	**Rank**
24	Individuals oversee all infection prevention and control activities are qualified in infection prevention and control practices .	4.06	0.862	High	3
25	There is a designated coordination mechanism for all infection prevention and control activities .	4.04	0.793	High	4
26	The infection prevention and control program is based on current scientific knowledge, guidelines, applicable laws and regulations.	4.07	0.884	High	2
27	KHCC leaders provide adequate resources to support the infection prevention and control program	4.10	0.909	High	1
Total		4.07	0.732	High	

As shown in table (4.8) the mean value of (4.06) reflects that the nurses attitude towards that , individuals oversee all infection prevention and control activities are qualified in infection prevention and control practices was high. The mean value of (4.04) reflects that the nurses attitude towards that , there is a designated coordination mechanism for all infection prevention and control activities was high. The mean value of (4.07) reflects that the nurses attitude towards that , the infection prevention and control program is based on current scientific knowledge, guidelines, applicable laws and regulations was high. While the mean value of (4.10) reflects that the nurses attitude towards that , KHCC leaders provide adequate resources to support the infection prevention and control program was high. The mean value of (4.07) is

the total of infection prevention and control , and the nurses attitude towards it was high . The mean value of the , there is a designated coordination mechanism for all infection prevention and control activities ,was the lowest one among the evaluation of the analyzing statements of infection prevention and control . And mean value of the , KHCC leaders provide adequate resources to support the infection prevention and control program, was the highest one among the evaluation of the analyzing statements of infection prevention and control. Results indicate there is a qualified team of infection prevention and control , who do follow up on patients , and activities of infection prevention and control , and educate patient on this subject .

Domain four : Human resource management

Table (4.9) shows the analyzing statements of the questionnaire items , that measure the independent variables TQM standards (JCIA program) application , which is human resource management.

Table (4.9)

Means and standard deviation for the questionnaire items (Human resource management)

	Items	**Means**	**Std**	**Evaluation**	**Rank**
Domain four : Human resource management					
28	compensation levels monitored and reviewed regularly	3.73	0.901	High	4
29	Compensation plan communicated to all employees	3.56	0.987	Moderate	6
30	Adequate training is given to the employees through programs and seminars	3.72	1.032	High	5
31	Hospital training courses are aligned with departmental objectives and goals	3.84	0.884	High	2
32	There is more learning opportunities provided in the center to improve performance.	3.87	0.862	High	1
33	Performance management create a shared understanding of what and how to improve performance.	3.79	0.796	High	3
34	Performance management encourages self management of individual performance .	3.73	0.901	High	4
Total		3.75	0.738	High	

As shown in table (4.9) the mean value of (3.73) reflects that the nurses attitude towards compensation levels monitored and reviewed regularly was high. The mean value of (3.56) reflects that the nurses attitude towards that , compensation plan communicated to all employees was moderate . The mean value of (3.72) reflects that the nurses attitude towards that , adequate training is given to the employees through programs and seminars was high. While the mean value of (3.84) reflects that the nurses attitude towards that , hospital training courses are aligned with departmental objectives and goals was high. The mean value of (3.87) reflects that the nurses attitude towards that , there is more learning opportunities provided in the center to improve performance was high. And mean value of (3.79) reflects that the nurses attitude towards that , performance management create a shared understanding of what and how to improve performance was high. And mean value of (3.73) reflects that the nurses attitude towards that , performance management encourages self management of individual performance was high as well. The mean value of (3.75) is the total of HRM analyzing statement , and the nurses attitude about it is high . The mean value of the , compensation plan communicated to all employees ,was the lowest one among the evaluation of the analyzing statements of infection prevention and control . And mean value of the , there is more learning opportunities provided in the center to improve performance, was the highest one among the evaluation of the analyzing statements of infection prevention and control. Results indicate KHCC do monitoring and review , for the compensation levels regularly , but compensation plan not communicated to all employees . Training is provided to employees , according to departments objectives and goals. KHCC encourages self management , and sharing of employees in the performance management plan, to increase individual performance.

Field two : Nurses' commitment

Table (4.10) shows the analyzing statements of the questionnaire items , that measure the dependent variable nurses' commitment in KHCC .

Table (4.10)

Means and standard deviation for of the questionnaire items (nurses' commitment in KHCC)

	Items	Means	Std	Evaluation	Rank
Field two : Nurses' commitment					
35	**Nurses attitude:** I would be very happy to spend the rest of my career in this center.	3.37	1.239	Moderate	10
36	I enjoy discussing center issues with people outside it .	3.33	1.209	Moderate	11
37	I really feel as if this center's problems are my own.	3.48	1.056	Moderate	8
38	**Nurses behavior:** I am friendly with my team members.	3.96	0.935	High	1
39	I work hard when I know results will be seen by you.	3.80	1.004	High	4
40	I Work more than the regular hours in order to make a good impression.	3.72	1.065	High	5
41	**Acceptance of program :** The center is trying to maintain acceptance of high quality standards.	3.92	0.947	High	2
42	I have limited complaints about the standards of TQM.	3.54	0.960	Moderate	6
43	Application of TQM standards are important.	3.96	0.867	High	1
44	I feel uncertain about the benefits of TQM on care.	3.23	1.054	Moderate	13
45	**Resistance to change :** I don't like to participate in applying TQM standards.	2.95	1.163	Moderate	1
46	I feel I have resistance to accept any change in my work routine.	3.01	1.156	Moderate	12
47	**Job security:** I feel insecure in my job .	3.41	1.204	Moderate	9
48	There are a lot of hazards in my work place.	3.53	1.124	Moderate	7
49	Special training is conducted in fire and safety.	3.91	0.883	High	3
Total		3.54	0.600	Moderate	

As shown in table (4.10) the mean value of (3.37) reflects that the nurses attitude towards being very happy to spend the rest of career in this center was moderate . The mean value of (3.33) reflects that the nurses attitude towards enjoying discussing center issues with people outside it was moderate . The mean value of (3.48) reflects that the nurses attitude towards that , really feel as if this center's problems are their own was moderate . While the mean value of (3.96) reflects that the nurses attitude towards that , being friendly with team members was high. The mean value of (3.80) reflects that the nurses attitude towards that , working hard when knowing results will be seen by researcher was high. And mean value of (3.72) reflects that the nurses attitude towards that , working more than the regular hours in order to make a good impression was high. And mean value of (3.92) reflects that the nurses attitude towards that , the center is trying to maintain acceptance of high quality standards was high as well.

The mean value of (3.54) reflects that the nurses attitude towards having limited complaints about the standards of TQM was moderate . The mean value of (3.96) reflects that the nurses attitude towards that , application of TQM standards are important was high . The mean value of (3.23) reflects that the nurses attitude towards feeling uncertain about the benefits of TQM on care was moderate . While the mean value of (2.95) reflects that the nurses attitude towards that don't like to participate in applying TQM standards was moderate . The mean value of (3.01) reflects that the nurses attitude towards feeling having resistance to accept any change in work routine was moderate . And mean value of (3.41) reflects that the nurses attitude towards feeling insecure in job was moderate. And mean value of (3.53) reflects that the nurses attitude towards that , there are a lot of hazards in work place was moderate as well. The mean value of (3.91) reflects that the nurses attitude towards that , special training is conducted in fire and safety in KHCC was high . The mean value of the , " I feel uncertain about the

benefits of TQM on care" ,was the lowest one among the evaluation of the analyzing statements of nurses' commitment in KHCC . And mean value of the , "I am friendly with my team member" , was the highest one among the evaluation of the analyzing statements of nurses' commitment in KHCC. In assessing nurses commitment in KHCC , results indicate they have low interest to spend rest of career in the center , or discuss the center issues and problem outside it. But the majority enjoy team work , and work hard more than the regular hours to give good impression . About the standards of TQM , there is collaboration between the KHCC and employees to maintain acceptance of high quality standards , and decrease resistance . Employee feel safe and secure while working in KHCC , which means that the center doing a great job in protecting his employees.

4.3 Testing hypotheses of the study

This section presents the analysis and results of the hypotheses focusing on the following criteria dimensions : TQM standards (provision of care , medication management , infection prevention and control and human resource management) ,assumed to have an impact on employee commitment .

4.3.1 Testing main hypothesis NO.1

The first hypothesis can be stated as follow :

Null : There is no significant relationship between the application of TQM standards(JCIA program)and nurses' commitment in King Hussein Cancer Center (KHCC) .

Alternate : There is significant relationship between the application of TQM standards (JCIA program)and nurses' commitment in King Hussein Cancer Center (KHCC) .

To test this hypothesis multiple regression analysis , ANOVA , and coefficient analysis were done .The goal of multiple regression analysis is to examine how much variation in the dependent variable (nurses' commitment) can be explained by the independent variables TQM standards . The results are shown in table (4.11) as follows :

Table (4.11) Results of main hypothesis NO.1

Variables	**F**	**Sig (P. value)**	**t**	**Beta**	**R**	**R square**	**Adjusted R square**
Independent variable : TQM	22.983	0.000			0.627	0.393	0.376
Provision of care		0.132	1.516	.169	0.481	0.231	
Medication management		0.770	0.293	.035	0.447	0.200	
Infection prevention and control		0.874	-0.159	-.022	0.940	0.240	
Human resource management		0.00	5.463	.503	0.611	0.373	
Notes: significant at $P \leq 0.05$, F tabulated (3.84)							

The null hypothesis is rejected and the alternate is substituted , Since the calculated value for (F) is 22.983 is significant at 0.000 level and p value $P \leq 0.05$, therefore there is significant relationship between the application of JCIA program and nurses' commitment in KHCC. Also the correlation coefficient (R= 0.627) indicated that the TQM standards are significantly and positively correlated to nurses' commitment . R2 value of (0.393) shows that TQM can be explained by (39%) of the variance in the nurses commitment.

4.3.2 Tests of sub – hypotheses

H 1.1

- **Null** : There is no significant relationship between applying provision of care and nurses' commitment in KHCC.
- **Alternate** : There is significant relationship between applying provision of care and nurses' commitment in KHCC

Table (4.12)

The relationship between applying provision of care and nurses' commitment in KHCC

Variables	**Beta**	**Sig**
Provision care	.169	0.132
Notes: * significant at P ≤ 0.05		

The result in table (4.12) shows the null hypotheses is accepted and the alternate is rejected , Since the calculated value for sig (0.132) ,(beta) is 0.169 ,so there is no significant relationship between applying provision of care and nurses' commitment in KHCC.

H 1.2 :

- **Null** : There is no significant relationship between applying the medication management and nurses' commitment in KHCC .
- **Alternate** : There is significant relationship between applying the medication management and nurses' commitment in KHCC .

Table (4.13)

The relationship between applying the medication management and nurses' commitment in KHCC

Variables	**Beta**	**Sig**
Medication management	.035	0.777
Notes: * significant at $P \leq 0.05$		

The result in table (4.13) shown the null hypothesis is accepted and the alternate is rejected , Since the calculated value for sig (0.770) ,(beta) is 0.035 , therefore there is no relationship between applying medication management and nurses' commitment in KHCC .

H1.3

- **Null** : There is no significant relationship between applying the standards of infection prevention and control, and nurses' commitment to in KHCC .
- **Alternate** : There is significant relationship between applying the standards of infection prevention and control, and nurses' commitment in KHCC .

Table (4.14)

The relationship between applying the standards of infection prevention and control, and nurses' commitment in KHCC.

Variables	**Beta**	**Sig**
infection prevention and control	-.022	0.874
Notes: * significant at P ≤ 0.05		

The result in table (4.14) shown the null hypotheses is accepted and the alternate is rejected , Since the calculated value for sig (0.874) , (beta) 0.022 . Therefore there is significant relationship between applying infection prevention and control and nurses' commitment in KHCC.

H1.4

- **Null** : There is no significant relationship between applying human resource management guidelines and nurses' commitment in KHCC .
- **Alternate** : There is no significant relationship between applying human resource management guidelines and nurses' commitment in KHCC .

Table (4.15)

The relationship between applying human resource management guidelines and nurses' commitment in KHCC

Variables		**Beta**	**Sig**
Human resource management guidelines		.503	0.000
	Notes: * significant at $P \le 0.05$		

The result in table (4.15) shown the null hypotheses is rejected and alternate is substituted , Since the calculated value for sig (000), (beta) 0.503 .Therefore there is significant relationship between applying human resource management guidelines and nurses' commitment in KHCC .

4.3.3 Testing main hypothesis NO.2

The second hypothesis can be stated as follows :

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in KHCC due to socio – demographic variables (age ,level of education ,gender ,marital status, experience, and job status) .

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment to TQM standards due to socio – demographic variables (age, level of education, gender, marital status, experience, and job status) . To test this hypothesis ANOVA and T test were done.

4.3.4 Test of sub hypotheses : H2.1 Age

Null: There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to age.

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to age.

Table (4.16)
Descriptive Statistics of (age)

Age	Mean	Std. Deviation	N
1	3.53	.594	110
2	3.56	.663	29
3	3.63	.478	8
Total	3.54	.600	147

The result as it shown in table (4.17) indicted that the calculated (F) value of (age) was 0.405 and significant value is (0.668) which is more than (0.005) , so that the null hypotheses is accepted which stated that there are no significant differences between TQM standards (JCIA program)application and nurses' commitment in KHCC due to (age) .

Table (4.17)

ANOVA analysis to explain the differences between JCIA program application and nurses' commitment in KHCC due to age

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	20.812a	6	3.469	15.328	.000
Intercept	6.452	1	6.452	28.510	.000
Care	.437	1	.437	1.932	.167
Medication	.011	1	.011	.050	.823
Infection	.001	1	.001	.005	.945
HRM	6.819	1	6.819	30.134	.000
Age	.183	2	.092	.405	.668
Error	31.681	140	.226		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .396 (Adjusted R Squared = .371)

H2.2 Level of education

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to level of education .

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to level of education .

Table (4.18)

Descriptive Statistics of (educational level)

Education level	Mean	Std. Deviation	N
2	3.52	.629	119
3	3.60	.431	12
4	3.69	.467	16
Total	3.54	.600	147

Table (4.19)

ANOVA analysis for differences between JCIA program application and nurses' commitment in KHCC due education level

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	20.865a	6	3.478	15.393	.000
Intercept	6.201	1	6.201	27.449	.000
Care	.435	1	.435	1.926	.167
Medication	.003	1	.003	.013	.910
Infection	.002	1	.002	.010	.921
HRM	6.758	1	6.758	29.912	.000
Education	.236	2	.118	.522	.595
Error	31.628	140	.226		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .397 (Adjusted R Squared = .372)

The result as it is shown in table (4.19) indicted that the calculated (F) value is 0.522, and significant value is (0.595) which is more than (0.005) . So that the null hypotheses is accepted which stated that there are no significant differences in the relationship between TQM standards (JCIA program) application and nurses' commitment in KHCC due to (level of education).

H2.3 Gender

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to gender.

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to gender.

Table (4.20)

Descriptive Statistics of (gender)

gender	Mean	Std. Deviation	N
1	3.54	.639	76
2	3.55	.559	71
Total	3.54	.600	147

Table (4.21)

T test for differences between JCIA program application and nurses' commitment to in KHCC due to gender

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	20.641a	5	4.128	18.275	.000
Intercept	6.507	1	6.507	28.805	.000
Care	.477	1	.477	2.112	.148
Medication	.021	1	.021	.091	.764
Infection	.005	1	.005	.024	.876
HRM	6.680	1	6.680	29.572	.000
Gender	.012	1	.012	.054	.817
Error	31.852	141	.226		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .393 (Adjusted R Squared = .372)

The result as it shown in table (4.21) indicted that the calculated (F) value was (-0.054) and significant value is (0.817) which is more than (0.005) . So that the null hypothesis is accepted which stated that there are no significant differences in the relationship between TQM standards (JCIA program) application and nurses' commitment in KHCC due to (gender) .

H2.4 Marital status

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to marital status .

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to marital status .

Table (4.22)

Descriptive Statistics of (marital status)

Marital status	Mean	Std. Deviation	N
1	3.49	.518	74
2	3.59	.672	73
Total	3.54	.600	147

The result as it is shown in table (4.23) indicted that the calculated (F) value is 0.328 , significant value is (0.568) which is more than (0.005) , so that the null hypotheses is accepted which stated that there are no significant differences in the relationship between TQM standards (JCIA program) application and nurses' commitment in KHCC due to (marital status) .

Table (4.23)

ANOVA analysis for differences between JCIA program application and nurses' commitment due to marital status

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	20.703a	5	4.141	18.365	.000
Intercept	6.454	1	6.454	28.626	.000
Care	.587	1	.587	2.606	.109
Medication	.013	1	.013	.059	.809
Infection	.008	1	.008	.037	.847
HRM	6.173	1	6.173	27.377	.000
Stauts	.074	1	.074	.328	.568
Error	31.790	141	.225		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .394 (Adjusted R Squared = .373)

H2.5 Experiences

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to experience.

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to experience.

Table (4.24)

Descriptive Statistics of (experience)

Experience	Mean	Std. Deviation	N
1	3.51	.592	34
2	3.59	.578	29
3	3.50	.628	54
4	3.60	.597	30
Total	3.54	.600	147

Table (4.25)

ANOVA analysis for the differences between JCIA program application and nurses' commitment due to experience

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	21.197a	7	3.028	13.449	.000
Intercept	6.812	1	6.812	30.254	.000
Care	.362	1	.362	1.609	.207
Medication	.016	1	.016	.069	.793
Infection	.015	1	.015	.067	.796
HRM	7.200	1	7.200	31.980	.000
Experience	.568	3	.189	.841	.474
Error	31.296	139	.225		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .404 (Adjusted R Squared = .374)

The result as it is shown in table (4.25) indicates that the calculated (F) value is 0.841 and significant value is (0.474) which is more than (0.005) ,so that the null hypotheses is accepted

which states that there are no significant differences in the relationship between TQM standards (JCIA program)application and nurses' commitment in KHCC due to (experience) .

H2.6 Job status

Null : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to job status.

Alternate : There are significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in King Hussein Cancer Center (KHCC) due to job status.

Table (4.26)

Descriptive Statistics of (job status)

Job status	Mean	Std. Deviation	N
1	3.55	.624	101
3	3.53	.549	46
Total	3.54	.600	147

Table (4.27)

ANOVA analysis for differences between JCIA program application and nurses' commitment due to Job status

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	20.633a	5	4.127	18.263	.000
Intercept	6.376	1	6.376	28.219	.000
Care	.519	1	.519	2.298	.132
Medication	.019	1	.019	.086	.770
Infection	.006	1	.006	.026	.872
HRM	6.575	1	6.575	29.100	.000
Job status	.004	1	.004	.019	.891
Error	31.860	141	.226		
Total	1895.724	147			
Corrected Total	52.493	146			

a. R Squared = .393 (Adjusted R Squared = .372)

The result as it is shown in table (4.27) indicates that the calculated (F) value is 0.019 , and significant value is (0.891) which is more than (0.005) . So that the null hypothesis is accepted which states There are no significant differences in the relationship between TQM standards (JCIA program)application and nurses' commitment to in KHCC due to (job status) .

4.4 Summary

Table (4.28) : Hypotheses testing summaries

Hypotheses	**Result**
Main NO.1 :There is no significant relationship between the application of (TQM standards) JCIA program and nurses' commitment in KHCC .	Rejected
H0.1.1: There is no significant relationship between applying provision of care and nurses' commitment in KHCC .	accepted
H0.1.2 : There is no significant relationship between applying the medication management and nurses' commitment in KHCC .	accepted
H0.1.3: There is no significant relationship between applying the standards of infection prevention and control, and nurses' commitment in KHCC ..	accepted
H0.1.4 : There is no significant relationship between applying human resource management guidelines and nurses' commitment in KHCC .	Rejected
Main NO.2 : There are no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in KHCC ,due to socio – demographic variables (age,level of education,gender,marital status,experience,and job status) .	Accepted

CHAPTER 5

RESULTS AND RECOMMENDATIONS

5.1 Results:

1. There is significant relationship between application of Total Quality Management (JCIA program) and nurses' commitment in KHCC .
2. There is no significant relationship between application of provision of care and nurses' commitment in KHCC, but it was the lowest variable who has this relation (23%).
3. There is no significant relationship between application of medication management and nurses' commitment in KHCC (20%) .
4. There is no significant relationship between application of infection prevention and control, and nurses' commitment in KHCC (24%) .
5. There is significant relationship between application of human resource management guidelines, and nurses' commitment in KHCC, which was the highest relation (37%).
6. There is defect in the communication of the compensation plan to all nurses in KHCC.
7. Not all nurses would be very happy to spend the rest of their career in KHCC.
8. Most of nurses in KHCC they don't enjoy discussion of the center issues outside it with other people.
9. Most of nurses in KHCC do not feel as if this center' problems are their own.
10. Some nurses they have some complaints about the standards of TQM as in JCIA program.
11. Most of nurses in KHCC are certain about the benefits of TQM (JCIA).
12. Most nurses in KHCC like to participate in applying TQM standards.
13. Most of nurses in KHCC have no resistance to accept change in work their work routine.
14. Most nurses in KHCC feel secure in their job.

15. Most nurses in KHCC believe there are limited hazards in work place.
16. There is limited nurse's commitment in KHCC (the mean value was 3.54).
17. There is no significant differences in relationship between TQM standards (JCIA program)application and nurses' commitment in KHCC due to socio – demographic variables (age, level of education ,gender ,marital status , experience ,and job status) .
18. Job status is the highest socio-demographic variable, who has no significant differences in the relationship between TQM standards, and nurse's commitment. (sig 0.891).
19. Experience is the lowest socio-demographic variable, which has no significant differences in the relationship between TQM standards, and nurse's commitment. (sig 0.474).

5.2 Discussion and Conclusion

The results of this study confirm that the variables considered in the theoretical framework are important .It clearly appears that the application of such a program, the Joint Commission International Accreditation Program, in the organization has a relation with nurse's commitment. Medication management has no relationship with nurse's commitment , that's mean application of guidelines of medication management , according to KHCC policies , has no relation with nurse's commitment (nurses' knowledge of standards , nurses' attitude , learning and training , nurses' behavior in doing the care , job security and even the acceptance of new program of JCIA and change process) . While the highest variable, which has relationship with the nurses' commitment in KHCC, was the Human Resource Management practices , which mean it is the most important factor to conceder when talking about nurses 'commitment in KHCC.

Nurse's commitment in KHCC can be enhanced through communicating the compensation plan to all nurses, and consider the motivation factors such as pay, incentives, rewards,

promotion. And through supporting nurses with training, job satisfaction, trust between them and management, and team work.

Nurse's attitude in KHCC needs to be enhanced; results show they have low interest to spend the rest of their career in the center, they don't feel that they are part of it or its problems and issues are their own . They work hard more than the regular hours, to give a good impression of the center and their patients' care, so the center must pay more attention to the way it appreciate his nurses.

Results show there is collaboration between KHCC and employees to maintain acceptance of high quality standards, and decrease resistance.

In this study demographic data of participating nurses has been examined .There were no significant differences in the relationship between TQM standards application and nurses' commitment in KHCC due to nurses' age , level of education , gender , marital status , experience , job status .With regard to the first sub – hypothesis , which states that" there is no significant relationship between applying provision of care and nurses' commitment in KHCC" ; Results has shown that there is a statistically no significant relationship between provision of care and nurses' commitment in KHCC , and that shows agreement with (Mrayyan and Faouri , 2008) .

The second sub – hypothesis, which states that "there is no significant relationship between applying the medication management and nurses' commitment in KHCC" . Results revealed that there is no statistically significant relationship between medication management and nurses' commitment in KHCC, and this has been found in other studies (Laurie Herndon, Jane Niemi,2007)

The third sub – hypothesis, which states “there is no significant relationship between applying the standards of infection prevention and control, and nurses’ commitment in KHCC” . The results have shown there is no significant relationship between applying infection prevention and control and nurses’ commitment in KHCC , this result was found in other study (Murphy-Knoll , 2007) .

The fourth sub–hypothesis, which states that” there is no significant relationship between applying human resource management and nurses’ commitment in KHCC” . Results show that there is high relationship between human resource management (compensation , hiring , training , and performance management) and nurse’s commitment in KHCC, this result shows agreement with (Katou,2008 , Boxall , 1996 , Barney and Wright , 1998) that emphasize the role of HRM in all its dimensions and how contribute with enhance the commitment in organization , through motivation , leadership style , training , and hiring committed people.
In conclusion , we could say that the TQM variables as represented by provision of care , medication management , infection prevention and control , and human resource management, are related to nurses’ commitment .Thereby, it is very important for managers in KHCC to consider nurses attitude , behavior , resistance , and job security in the application of TQM through JCIA program in all areas in KHCC .

5.3 Recommendations

Based on the findings of the research, the researcher recommends:

(1) To include the standards in the orientation programs ,and other training programs conducted for the new nurses in KHCC.

(2) To include the standards of TQM ,as mentioned in the JCIA program , in the appraisal of nurses in KHCC.

(3) The management of KHCC should encourage nurses training to provide them with enough knowledge and skills that will help to identify TQM goals and to achieve theses goals.

(4) Management should pay attention to a continuous improvement culture in the center based on the suggestions of patient's feedback .

(5) Management should take into account the customer's attitude toward nurses' commitment in KHCC.

(6) The center should utilize human resource strategies of hiring and retaining experienced, committed nurses.

(7) Enhance assessment of patient and family willingness and ability to learn.

(8) Assign qualified individuals to conduct assessment and reassessment of patients .

(9) Enhance coordination mechanism for all infection prevention and control activities.

(10) Communicate the compensation plan of KHCC to all nurses.

(11) Encourage leaders and managers in KHCC to listen to nurses complains about TQM standards application.

(12) Motivate all nurses in KHCC to be committed to center.

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Appendix (1)

The Questionnaire

The university of Jordan

Department of Public Administration

Date :

Study title : The Relationship Between Total Quality Management (TQM) Standards Application and Nurses' Commitment : Case study in King Hussein Cancer Center.

Dear participant ,

I am Safa'a Qashtawi a student in the University of Jordan , a master degree in Public Administration . Iam greatly thankful to you for filling this questionnaire ,which is designed to study the relationship between Total Quality Management (TQM) standards application and nurses' commitment in King Hussein Cancer Center(KHCC) .The information you provide will help us because you are the one who can give us an accurate picture of how nurses in your department accept and respond to this program of quality .

Your responses will be kept strictly confidential. If you want, summary of the results will be mailed to you after the data are analyzed. In this case write down your e-mail . Filling this questionnaire is voluntary. Thank you very much for your time and cooperation.

For any questions , contact the researcher at (e-mail :safaqashtawi@hotmail.com , tel :0799332676), Principal Investigator from KHCC: (Ala'a Al – Deen Yousef, tel: 0796055889), and the IRB office, tel : (+9626) 5300460 Ext 1669. This study was reviewed and approved by IRB at KHCC.

Safa'a Qashtawi ,

Graduate student Master of public Administration program.

Section one: About yourself

Please tick the square that represent the most appropriate responses for you in respect of the following items :

1. Your age (years)

1. 20-30 ☐ 2. 31-40 ☐
3. 41-50 ☐ 4. Over 51 ☐

2. Your highest completed level of education

1. Less than B.A ☐ 2. B.A ☐
3. High Diploma ☐ 4. Master degree or more ☐

3. Your Gender

1. Male ☐ 2. Female ☐

4. Your marital status

1. Married ☐ 2. Single ☐
3. Divorced ☐ 4. widowed ☐

5. **Number of years worked in the organization**

1. Less than 1 ☐ 2. 1-2 ☐
3. 3-5 ☐ 4. 6-10 ☐ 5. Over 10 ☐

6. Job status

1. Non managerial ☐ 2. First level supervisor ☐
3. Middle management ☐ 4. Top management ☐

Section two:

TQM standards and Nurses' commitment .

Please read each statement and **Tick** the number that most accurately reflects your opinion.

	Items	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Field one :Total Quality Management (TQM) : Joint Commission International Accreditation (JCIA)						
Domain One : Provision of care						
1	KHCC develops an approach to improve accuracy of patient's identification					
2	KHCC develops an approach to improve the effectiveness of communication among care givers.					
3	KHCC develops an approach to improve the safety of high-alert medications.					
4	KHCC develops an approach to ensuring correct-site, correct-procedure, and correct-patient surgery.					
5	KHCC develops an approach to reduce the risk of health care–associated infections.					
6	KHCC provides education that supports patient and family participation in care decisions and care processes					
7	Each patient's educational needs are assessed and recorded in his or her record.					
8	The patient's and family's ability to learn and willingness to learn are assessed.					
9	Education and training help meet patients' ongoing health needs					
10	Patient and family education includes topics related to the patient's care					

	Items	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
11	Education methods include the patient’s and family’s values and preferences.					
12	Health professionals caring for the patients collaborate to provide education.					
13	All patients cared for by the organization have their health care needs identified through an established assessment process.					
14	All patients are reassessed at intervals based on their condition and treatment.					
15	Qualified individuals conduct the assessments and reassessments.					
16	Physicians, nurses, and other individuals responsible for patient care collaborate to analyze and to integrate patient assessments					
Domain Two :medication management						
17	Medication’s use in the organization complies with applicable laws and regulations and is organized to meet patient needs.					
18	An appropriate selection of medications for prescribing or ordering is stocked or readily available.					
19	Medications are properly and safely stored.					
20	Prescribing, ordering, and transcribing are guided by policies and procedures.					
21	Medications are prepared and dispensed in a safe and clean environment.					
22	KHCC identifies those qualified individuals permitted to administer medications.					
23	Medication’s effects on patients are monitored.					

	Items	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Domain Three : Infection prevention and control						
24	Individuals oversee all infection prevention and control activities are qualified in infection prevention and control practices .					
25	There is a designated coordination mechanism for all infection prevention and control activities .					
26	The infection prevention and control program is based on current scientific knowledge, guidelines, applicable laws and regulations.					
27	KHCC leaders provide adequate resources to support the infection prevention and control Program					
Domain four : Human resource management						
28	compensation levels monitored and reviewed regularly					
29	Compensation plan communicated to all employees					
30	Adequate training is given to the employees through programs and seminars					
31	Hospital training courses are aligned with departmental objectives and goals					
32	There is more learning opportunities provided in the center to improve performance.					
33	Performance management create a shared understanding of what and how to improve performance.					
34	Performance management encourages self management of individual performance .					

	Items	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Field two : Nurses' commitment in KHCC due to TQM						
35	I would be very happy to spend the rest of my career in this center.					
36	I enjoy discussing center issues with people outside it .					
37	I really feel as if this center's problems are my own.					
38	I am friendly with my team members.					
39	I work hard when I know results will be seen by you.					
40	I Work more than the regular hours in order to make a good impression.					
41	The center is trying to maintain acceptance of high quality standards.					
42	I have limited complaints about the standards of TQM.					
43	Application of TQM standards are important.					
44	I feel uncertain about the benefits of TQM on care.					
45	I don't like to participate in applying TQM standards.					
46	I feel I have resistance to accept any change in my work routine.					
47	I feel insecure in my job .					
48	There are a lot of hazards in my work place.					
49	Special training is conducted in fire and safety.					

I sincerely appreciate your time and cooperation .please check to make sure that you have not skipped any questions.

Thank you

Appendix (2)

The names of referees

Name	**Institution**
Dr. Zu’bi El-Zu’bi	**The University of Jordan**
Dr. Mohammad El-Shraideh	**The University of Jordan**
Dr. Mohammad Hunitie	**The University of Jordan**
Dr. Prof Hani Al-Dmour	**The University of Jordan**
Dr. Ribhi El- Hasan	**The University of Jordan**
Dr. Maysa Al-Hussaini	**King Hussein Cancer Center**
Mr. Ala Eddin Yousef	**King Hussein Cancer Center**

العلاقة بين تطبيق معايير ادارة الجودة الشاملة والتزام العاملين في التمريض : حالة دراسية في مركز الحسين للسرطان

إعداد

صفاء حكمت احمد قشطاوي

المشرف

الدكتور عادل الشمايلة

الملخص

الهدف من هذه الدراسة هو اختبار العلاقة بين تطبيق معايير إدارة الجودة الشاملة (TQM) كما هي مدرجة من قبل برنامج لجنة الاعتماد الدولية المشتركة (JCIA) (توفير الرعاية ، وإدارة الدواء، ومنع العدوى والسيطرة عليها، وإدارة الموارد البشرية) و التزام العاملين في التمريض في مركز الحسين للسرطان . ولتحقيق أهداف هذه الدراسة والإجابة عن أسئلتها تم عمل الاستبيان الذي تم توزيعه على عينة من (191) من العاملين في التمريض, تم استرجاع (147) من مجموع الاستبيانات التي تم توزيعها وتشكل (77 ٪) . تم استخدام الأساليب المناسبة الإحصائية (SPSS) لتحليل البيانات واختبار الفرضيات للدراسة. نتائج الدراسة ما يلي:

1. **هناك علاقة كبيرة بين تطبيق معايير إدارة الجودة الشاملة(برنامج JCIA) والتزام العاملين في التمريض في مركز الحسين للسرطان والأكثر تأثرا بممارسات إدارة الموارد البشرية.**
2. **خطة التعويض لم توصل لجميع الممرضين والممرضات في مركز الحسين للسرطان.**

3. **هناك التزام محدود للتمريض في مركز الحسين للسرطان (قيمة يعني كان 3.54).**

4. **ليس هناك اختلافات كبيرة بين تطبيق معايير إدارة الجودة الشاملة (برنامج JCIA) العاملين في التمريض في مركز الحسين للسرطان بسبب المتغيرات الاجتماعية الديمغرافية .**

بناء على نتائج الدراسة قدمت التوصيات التالية:

(1) تشجيع جميع الممرضين والممرضات بتطبيق معايير إدارة الجودة الشاملة (برنامج JCIA) في جميع المجالات في مركز الحسين للسرطان.

(2) تضمين المعايير في برامج التدريب ، وتقييم الممرضين والممرضات في المستشفيات.

(3) وعلى الإدارة أن تولي اهتماما بردود فعل المرضى تجاه التزام العاملين في التمريض في مركز الحسين للسرطان.

(4) الاستفادة من استراتيجيات الموارد البشرية للتوظيف والاحتفاظ بذوي الخبرة و الالتزام من التمريض .